DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-018803
Date Inspected: 21-Dec-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 630
OSM Departure Time: 1500
Location: Job Site

CWI Name:	See Below			**CWI Present:**	☑ Yes	☐ No	
Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: Orthotropic Box Girders

Summary of Items Observed:

At the start of the shift the Quality Assurance Inspector (QAI) traveled to the project site and observed the following work performed by American Bridge/Fluor Enterprises (AB/F) personnel at the locations noted below:

A). Pipe Supports
B). PQTR Soundness Test
C). Deck Access Holes
D). Miscellaneous Task

A). Pipe Supports

The QAI observed the fillet welding of the pipe supports along the W5 grid line located on top side of the OBG W4 "A" deck. The QC inspection was performed by Mike Johnson utilizing the Welding Procedure Specification (WPS) identified as Fillet Murex to monitor the welding and to verify the welding parameters. The welding parameters were observed and recorded as 96 amps utilizing 2.4 mm electrodes with the welding performed in the 2F and 3F position. The Welding was performed by David Garcia ID-8789.

The QAI also observed the continued fillet welding of the pipe supports along the E5 grid line located on top side of the OBG W7 "A" deck. The QC inspection was performed by Mike Johnson utilizing the Welding Procedure Specification (WPS) identified as Fillet Murex to monitor the welding and to verify the welding parameters. The welding parameters were observed and recorded as 97 amps utilizing 2.4 mm electrodes with the welding performed in the 2F and 3F position. The Welding was performed by Rick Kiikvee ID-5319

The welding of the pipe supports was not completed during this shift.

B). PQTR Soundness Test

The QAI observed the welding and inspection of the Procedure Qualification Record (PQR)test plate identified as ABF-PQR-FO25-4. The welding was performed by Rick Clayborn, ID-2773, utilizing the Shielded Metal Arc Welding process and the 3.2 mm E9018 H4R electrode, as per the PQR which was also utilized by the Quality Control (QC) inspector Mike Johnson as a reference to monitor the welding and to verify the Direct Current (DC) welding parameters. The welding was performed in the overhead (4F) position with the test plate assembly positioned so that each fillet weld was deposited on the underside of the horizontal surface and against the vertical surface. The maximum single pass fillet weld was welded on one side of the test plate, and the minimum multiple pass fillet weld was welded on the other side of the test plate. The dimensions of the test coupon were verified as 38.1 mm thick, 300 mm in length and 150 mm wide. The material specification appeared to comply with the American Society of Testing Materials (ASTM) A709-485 HPS. The welding of the test plate was completed during this shift. The QAI assigned a lot number identified as B301-001-10A and also generated a TL-6032 on this date.

C). Deck Access Holes

The QAI also observed the welder, Mike Jiminez ID-4671, perform the Complete Joint Penetration (CJP) groove welding of the Deck Access Hole (DAH) identified as WN: 1W-PP9.5-W4-Weld No. 4 located along the grid line W4 of the OBG idnetieid as W1. The welding was performed utilizing the Shielded Metal Arc Welding (SMAW) process as per the Welding Procedure Specification (WPS) ABF-WPS-D15-1010A, Rev. 1. The WPS was also utilizied by the QC inspector, William Sherwood, as a reference to monitor the welding and to verify the welding parameters. The QC verification of the welding parameters was observed by the QAI and recorded as 129 amps. The welding was performed in the overhead (4G) position with the work placed in an approximately horizontal plane with the weld metal deposited from the underside. The welding and the profile grinding of the CJP was completed during this shift and at the conclusion of the welding the QC inspector performed a visual inspection and no rejectable indications were noted by the QC inspector. The QAI concurs with the QC inspector's assessment.

D). Miscellaneous Task

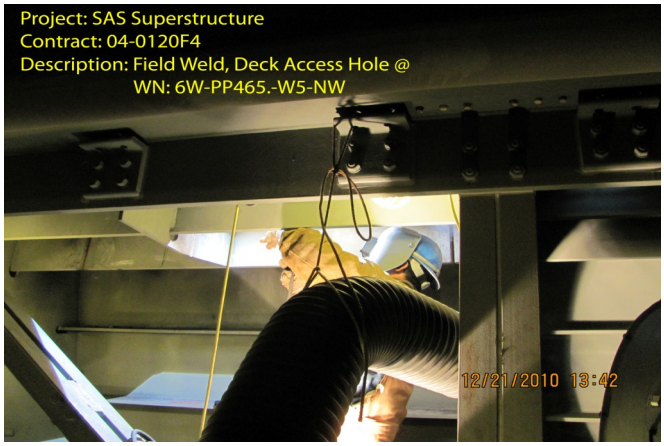
This QAI also performed a review and update of the project progress utilizing QA field reports and NDT reports. The updated project information was documented into the various QA tracking logs.

QA Observation and Verification Summary

The QA inspector observed the QC activities and the welding of the field splices utilizing the WPS as noted above, which appeared to be posted at the weld station. The welding parameters and surface temperatures were verified by the QC inspector and utilizing a Fluke 337 clamp meter for the electrical welding parameters and a Fluke 63 IR Thermometer for verifying the preheat and interpass temperatures. The ESAB consumables utilized for the SMAW welding process appeared to comply with the AWS Specification and AWS Classification. The QC

inspection, testing and welding performed on this shift appeared to be in general compliance with the contract documents. At random intervals, the QAI verified the QC inspection, testing, welding parameters and the surface temperatures utilizing various inspection equipment and gages which included a Fluke 337 Clamp Meter and Tempilstik Temperature indicators.

The digital photographs below illustrate the work observed during this scheduled shift.



Summary of Conversations:

There were general conversations with Quality Control Inspector Bonifacio Daquinag, Jr. at the start of the shift regarding the location of American Bridge/Fluor welding, inspection and N.D.E. testing personnel scheduled for this shift.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Reyes,Danny	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer